

**Amendments to the Claims:**

This listing of claims replaces any and all prior claim lists.

**Listing of Claims:**

Claim 1 (currently amended). An optical communication apparatus, comprising:  
an optical transmitter having a short-wavelength light-emitting element for emitting light signals corresponding to electrical signals input from the outside by using light emitted from said short-wavelength light-emitting element;

a plastic optical fiber having a core made of methacrylate polymer free from benzene rings, ~~the~~ an amount of sulfur atoms that are not bound to the methacrylate polymer in said core being set to 5ppm or less, one end of said optical fiber being optically coupled to said short-wavelength light-emitting element; and

an optical receiver having a photodetecting element coupled optically to the other end of said plastic optical fiber and adapted to generate an output electrical signal in accordance with the output of said photodetecting element.

Claim 2 (currently amended). The optical communication apparatus as claimed in claim 1, wherein the amount of sulfur atoms that are not bound to the methacrylate polymer in said core is set to 3ppm or less.

Claim 3 (currently amended). The optical communication apparatus as claimed in claim 1, wherein the amount of sulfur atoms that are bound to the methacrylate polymer in said core is set to a value in the range from 200 to 1000 ppm.

Claim 4 (original). The optical communication apparatus as claimed in any one of claims 1 to 3, wherein said short-wavelength light-emitting element emits light having the maximum light emission wavelength of 600nm or less.

Claim 5 (original). The optical communication apparatus as claimed in any one of claims 1 to 3, wherein said short-wavelength light emitting element is a yellow light-emitting diode for emitting light having the maximum light emission wavelength of 560 to 590nm.

Claim 6 (original). The optical communication apparatus as claimed in any one of claims 1 to 3, wherein said short-wavelength light emitting element is a green light-emitting diode for emitting light having the maximum light emission wavelength of 490 to 550nm.

Claim 7 (canceled).

Claim 8 (currently amended). ~~The~~ An optical communication apparatus as ~~claimed in claim 7, comprising:~~

an optical transmitter having a yellow light-emitting element for emitting light signals corresponding to electrical signals input from the outside by using light emitted from said yellow light-emitting element;

a plastic optical fiber having a core made of methacrylate polymer free from benzene rings, one end of said optical fiber being optically coupled to said yellow light-emitting element; and

an optical receiver having a photodetecting element coupled optically to the other end of said plastic optical fiber and adapted to generate an output electrical signal in accordance with the output of said photodetecting element, wherein said plastic optical fiber is designed so that light propagates in only one direction; and

wherein the amount of sulfur atoms that are not bound to the methacrylate polymer in said core is set to 5ppm or less.

Claim 9 (currently amended). The optical communication apparatus as claimed in claim 8, wherein the amount of sulfur atoms that are not ~~bound~~ bound to the methacrylate polymer in said core is set to 3ppm or less.

Claim 10 (currently amended). The optical communication apparatus as claimed in claim ~~7~~ 8, wherein said yellow light-emitting element comprises a light emission diode which has the maximum light emission wavelength in the range from 560nm to 590nm, the full width at half maximum of wavelength of 40 nm or less and the total emission light amount of 0dBm or more.

Claim 11 (currently amended). The optical communication apparatus as claimed in any one of claims ~~7~~ 8 to 10, wherein said plastic optical fiber has a transmission loss of 0.1dB/m or less at the wavelengths of 560 to 590nm, and the connection loss between said yellow light-emitting element and said plastic optical fiber is equal to 10dB or less.

Claim 12 (currently amended). The optical communication apparatus as claimed in any one of claims ~~7~~ 8 to 10, wherein said optical receiver has the minimum reception sensitivity of -25dBm or less at the wavelengths of 560 to 590nm.